## REMARKS

The present request is submitted in response to the Final Office Action dated December 18, 2003, which set a three-month period for response, making this request due by March 18, 2004.

Claims 12-15 and 17 are pending in this application.

In the final Office Action, claims 12-15 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,726,739 to Hayata and further in view of U.S. Patent No. 4,095,881 to Maddox.

The Applicants respectfully disagree that the subject matter of claims 12-15 and 17 is rendered obvious over the combination of the Hayata and Maddox patents.

In the final action, the Examiner states that Hayata teaches all of the features of claim 12, except for the use of a second mirror to reflect the light portion back to the first mirror. The Applicants respectfully disagree.

In the analysis in the Office Action, the Examiner does not take into consideration that in Hayata, it is the UV-portion of the light that is imaged onto the viewing screen. In contrast, the present invention teaches the imaging of the IR spectral portion onto the viewing screen.

In Hayata, the IR light is merely filtered by using the cold mirror 3. It is not used further. The patent to Maddox also does not provide any teaching or suggestion regarding the adoption of a dual-channel optics using both the UV as well as the IR portions of the light, the former being used for the primary

application and the latter being used for the purpose of mechanical positioning, or "adjustment".

Thus, the rejection of claim 12 under Section 103 cannot be maintained. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. ***In re Fritch***, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

Therefore, the Applicants respectfully submit that claim 12 is patentable over the cited reference combination.

With regard to the rejection of claim 13, because claim 13 depends from claim 12, claim 13 also is patentable over the cited reference combination. In addition, since the Hayata patent shows the second mirror 11 as a plane and since Maddox shows a completely different set-up with a reflection mirror 22 integrated almost into the reflector, it would not have been obvious to one skilled in the art to use a curved mirror in the optics.

The Applicants therefore submit that claim 13 likewise is patentable over the cited references.

Regarding the rejection of claim 14, the Examiner states in the Office Action that all of the features of the method of claim 14 are known from Hayata, except the feature that the second mirror reflects the light portion back to the first mirror. This feature, however, according to the Examiner, is known from Maddox, "in which the reflector (22)", according to the Examiner, "will act in the

same way as the second mirror in that it successfully reflects the desired light back to the lamp, and this will lead to the desired adjustment of the lamp (10)".

The Applicants respectfully disagree with this analysis. The Examiner's interpretation of the term "adjustment" is not commensurate with the context of the application that this term is used in. As is evident, for example, on page 2, lines 26-29 of the English translation of the PCT application of the present application, the "adjustment" of the lamp in the application implies a mechanical "positioning", rather than a turning of the emission itself, as suggestion by the Examiner's position. The "adjustment" in the sense of positioning will not lead to an improved efficiency of the lamp or radiation wavelength emitted from the lamp.

In addition, the set-up described in Hayata images the first portion of the light onto the viewing screen. In contrast, the present invention uses "at least one part of the second spectral portion to adjust the lamp", as specifically defined in claim 14. In Hayata, no parallel usage of the IR light that has been transmitted through the cold mirror 3 is disclosed. Thus, the principle of the present invention – that is, to use for the purpose of adjustment in the sense of mechanical positioning that spectral portion of the light that is not used for the main application – is not disclosed or suggested by Hayata.

The Applicants submit further that it would not be obvious to a person of ordinary skill in the art to use the portion of the light transmitted through the cold mirror 3, because the adoption of two-channel optics constitutes a complete system re-design. The Maddox patent also does not provide any suggestions in

this direction, because Maddox merely teaches increasing the temperature of the light-emitting source with a simple back-reflection mirror 22.

The rejection of claim 14 therefore cannot be sustained. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. ***ACS Hosp. Sys., Inc., v. Montefiore Hosp.***, 221 USPQ 929, 932, 933 (Fed. Cir. 1984).

Therefore, the Examiner is kindly requested to reconsider the above argument and in light of this argument, to allow claim 14 in its present form.

With regard to claim 15, this claim depends from claim 14 and therefore is patentable for the reasons set forth above. Furthermore, since excessive heating of the lamp housing often is a problem in the design of illumination systems, the Applicants submit further that it would not have been obvious for a person skilled in the art to place the heat sink disclosed in Maddox inside the lamp housing. In particular, Maddox includes no suggestions in that direction.

Finally, with regard to the rejection of claim 17, Hayata teaches the use of a condenser behind the cold mirror 3, while in the present invention, the condenser is used before the first mirror. This is not an equivalent or comparable arrangement.

In addition, the imaging onto a screen as well as the back-reflection by the second mirror in Maddox is not equivalent to the present invention, because in Maddox, these elements are used in the light path for exposure. In contrast, in

the present invention, they are used in the light path of the light portion used for adjustment.

Turning now to the Examiner's response to the Applicants' previous arguments, as set forth above, the term "adjusting the lamp" according to the present invention refers to a mechanical positioning rather than an adjustment of the emitting source itself by changing the intrinsic properties of the lamp (see page 2, lines 26-29 of the present invention).

For the reasons set forth above, the Applicants respectfully submit that claims 12-15 and 17 are patentable over the cited reference combination. The Applicants further request withdrawal of the final rejection under 35 U.S.C. 103 and reconsideration of the claims as herein amended.

In light of the foregoing arguments in support of patentability, the Applicants respectfully submit that this application stands in condition for allowance. Action to this end is courteously solicited.

Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully submitted,

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